

## Indiana Winter Weather Awareness Week is November 16-22, 2003

Governor Joe Kernan has proclaimed November 16-22, 2003 as Winter Weather Awareness Week in Indiana.

The National Weather Service (NWS) will conduct a winter weather awareness campaign during the month of November. The purpose of the awareness campaign is to remind the citizens of Indiana of winter's hazards and how to stay safe, and to educate everyone about National Weather Service forecast terms and products.

The Warning Coordination Meteorologist (WCM) serving your area will be available for interviews and questions.

## 2003-04 Winter Outlook

The 2003-04 Winter Outlook issued by the Climate Prediction Center indicates equal chances for above, below, or normal temperatures across Indiana. Across the Nation, temperatures over the far West, Southwest, and the southern Plains will likely be warmer than the long-term averages. The majority of the nation, including Indiana, will have equal chances of above, below, or normal precipitation. The exception is an area from Texas and western Louisiana northward into Oklahoma and northwest Arkansas, where above normal amounts are likely.

Without a strong El Niño or La Niña signal as a guide, there is more uncertainty in the forecast. In cases where a dominate climate feature is missing, historical trends of temperature and precipitation averages as well as dynamical and statistical models are relied upon.

Average seasonal snowfall over Indiana ranges from around 80 inches in the Lake Effect Region of northwest Indiana to near 15 inches along the Ohio River. Normal high temperatures during the heart of the winter season range from around 30°F over northern Indiana to near 40°F over the southern reaches of the State.

A full color version of this publication is available on-line at:

http://www.crh.noaa.gov/ind and http://www.crh.noaa.gov/iwx/publications/winter



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# Winter Weather Preparedness 101 For Schools Designing a Winter Weather Emergency Plan

#### **Gathering information**

- \* Know where to get weather information: Utilize NOAA Weather Radio, local Media sources, Internet, and paging services.
- \* Know how and where to get road information: Indiana State Police road conditions (visit http://www.state.in.us/ai/travel for additional information), city and county transportation officials, and drivers or security teams are excellent sources.

#### Alerting students and staff

\* Alert students and staff to take action: Use mobile communications for bus drivers, and a PA system for school staff and students.

#### Activating plan

\* Determine when to activate plan: Gather information about the type of winter storm, expected impact, and time of impact on the school district. The primary decision will be whether to cancel, delay, or hold classes as usual. In watch situations, immediate action will usually not be required. When a warning or advisory is issued, assess the weather situation by monitoring NWS forecasts, current weather conditions, and road conditions.

#### **Canceling or Delaying Classes**

\* Determine when to cancel or delay classes: How much time do you have before the storm impacts the area? Not only must students be transported to school safely, but also back home via bus, car, or on foot. What kind of an impact will the storm make? Will roads be impassable, or will road conditions just have a minimal effect on transportation of students, causing only small delays.

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# **Winter Storms...Deceptive Killers**

Winter storms are considered deceptive killers because most deaths are *indirectly* related to the storm. Fatalities occur:

- In traffic accidents on icy roads.
- \* From heart attacks while shoveling snow.
- From hypothermia due to prolonged exposure to cold.

# **Winter Deaths**

Related to ice and snow:

- About 70% occur in automobiles.
- About 25% are people caught out in the storm.
- Majority are males over 40 years old.

Related to exposure to cold:

- \$ 50% are people over 60 years old.
- \* Over 75% are males.
- About 20% occur inside the home.



Winter weather claims nearly 100 lives annually.



# Winter Weather Terms...What To Listen For

*Hazardous Weather Outlook* - A Hazardous Weather Outlook will be issued to alert the public of the potential for hazardous winter weather. This outlook is issued daily and will provide weather information through the next 7 days.

**Winter Storm Watch** - A Winter Storm Watch is issued to inform the public of the possibility of one or a combination of the following events: blizzard conditions, heavy snow, significant and damaging accumulations of freezing rain, or heavy sleet. A watch usually gives 12 to 36 hours advance notice of the onset of winter weather conditions.

**High Wind Watch** - A High Wind Watch is issued to inform the public of the possibility of sustained winds (one hour or longer) of 40 mph or higher and/or wind gusts (any duration) of 58 mph or higher. A watch usually gives 12 to 36 hours advance notice of the onset of high winds.

**Blizzard Warning** - A Blizzard Warning is issued when heavy snow and/or blowing snow (visibility less than 1/4 of a mile) and sustained winds or frequent wind gusts of 35 mph or more are expected for a period of three hours or more.

**Lake Effect Snow Warning** - A Lake Effect Snow Warning is issued when 6 inches or more of lake effect snow in 12 hours and/or 8 inches or more of snow in 24 hours is expected.

*Ice Storm Warning* - An Ice Storm Warning is issued when significant and damaging ice accumulations (usually one quarter inch or more) are expected.

**Winter Storm Warning** - A Winter Storm Warning is issued when heavy snow, or a mixture of heavy snow, freezing rain, and/or sleet is expected.

Wind Chill Warning - A Wind Chill Warning is issued when wind chill values are expected to be -30°F or colder in northern Indiana, -25°F or colder in central Indiana, and -20°F or colder in southern Indiana, with a wind speed of 10 mph or greater.

*High Wind Warning* - A High Wind Warning is issued when sustained winds (one hour or longer) of 40 mph or higher and/or wind gusts (any duration) of 58 mph or higher are expected.

**Advisories** are issued for winter weather events that are hazardous, but not severe enough to warrant a warning. Advisories may be issued for: snow and/or blowing snow, lake effect snow, freezing rain, freezing drizzle, wind chill, wind, and dense fog.

**Heavy Snow** - Heavy Snow is defined as 6 inches or more of snow in 12 hours and/or 8 inches or more of snow in 24 hours in northern and central Indiana and 4 inches or more of snow in 12 hours and/or 6 inches or more of snow in 24 hours in southern Indiana.

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## **Frostbite**

Frostbite is damage to body tissue caused by that tissue being frozen. Frostbite causes a loss of feeling and a white or pale appearance in extremities, such as fingers, toes, ear lobes, or the tip of the nose. If symptoms are detected, get medical help immediately! If you must wait for help, slowly re-warm the affected areas. However, if the person is also showing signs of hypothermia, warm the body core before the extremities.

At a Wind Chill
Temperature of minus
50°F, frostbite will
occur within 10
minutes. At minus
30°F, frostbite will
occur within 30
minutes.

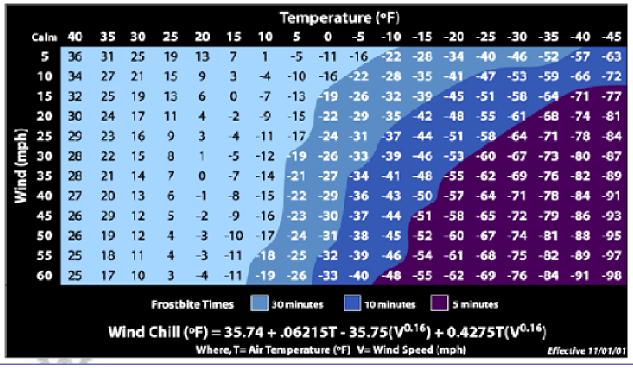
# **Hypothermia: Low Body Temperature**

Warning Signs - Uncontrollable shivering, memory loss, disorientation, incoherence, slurred speech, drowsiness, and apparent exhaustion.

Detection - Take the person's temperature. If below 95°F (35°C), seek medical care immediately!

If medical care is not available, begin warming the person slowly. Do not warm extremities (arms and legs) first! This drives the cold blood toward the heart and can lead to heart failure. Instead, warm the body core first. If needed, use your own body heat to help. Get the person into dry clothing and wrap them in a warm blanket, covering the head and neck. Do not give the person alcohol, drugs, coffee, or any hot beverage or food; warm broth is better.

# Wind Chill Chart













# Be Prepared...Before the Storm Strikes

#### At home and at work...

Have available:

- \* Flashlight and extra batteries.
- \* Battery-powered NOAA Weather Radio and portable radio.
- \* Extra food and water.
- \* Extra medicine and baby items.
- \* First-aid supplies.
- \* Heating fuel.
- \* Emergency heating source.
- \* Fire extinguisher and smoke detector.

#### In vehicles...

- \* Fully check and winterize your vehicle.
- \* Carry a winter storm survival kit: blankets/ sleeping bags; flashlight; first-aid kit; knife; non-perishable food; extra clothing; a large empty can and plastic cover with tissues and paper towels for sanitary purposes; a smaller can and water-proof matches to melt snow for drinking water; sand; shovel; windshield scraper; tool kit; tow rope; booster cables; water container; and road maps.
- \* Keep your gas tank near full.
- \* Try not to travel alone.
- \* Let someone know your itinerary.

# While Driving During a Storm

#### Drive for the conditions:

- \* Slow down.
- \* Allow extra braking distance.
- \* Do not tailgate.

#### Allow snowplow operators to do their job:

- \* Maintain a safe distance...if salt is hitting your vehicle when you follow a snowplow, you are too close.
- \* Avoid passing snowplows on a roadway that is only one lane in each direction.

#### Remain alert for sudden road condition changes:

- \* Bridges and overpasses often become icy first.
- \* Snow and blowing snow can produce sudden restrictions in visibility.

#### January 25-27, 1978

Perhaps the greatest blizzard ever to strike the region deposited 24 inches of snow at South Bend, 16 inches at Indianapolis, and 10 inches at Fort Wayne. Thunder and lightning were observed with the snow. Wind gusts up to 70 miles per hour produced snow drifts as high as 30 feet. The weight of the snow caused roofs to collapse at factories, warehouses, and even a school near Muncie. A federal state of emergency was declared.

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# When Caught in a Winter Storm

# At Home or in a Building

**Stay inside.** When using alternative heat from a fireplace, wood stove, space heater, etc., use fire safeguards and ventilate properly.

#### If you have no heat:

- \* Close off unneeded rooms.
- \* Stuff towels or rags in cracks under doors.
- \* Cover windows at night.

**Eat and drink.** Food provides the body with energy for producing its own heat. Keep the body replenished with fluids to prevent dehydration.

Wear layers of loose-fitting, light-weight, warm clothing. Remove layers to avoid overheating, perspiration, and subsequent chill.

March 19-20, 1996

A snow storm which extended into the first day of spring, deposited 12 inches of snow at Indianapolis and 10 inches at Evansville. The weight of the snow brought down thousands of trees and power lines, leaving over 200,000 homes and businesses without power.

#### In a Car or Truck

**Stay in your vehicle.** Disorientation occurs quickly in wind-driven snow and cold. Run the motor about ten minutes each hour for heat:

- \* To avoid carbon monoxide poisoning, open the window a little for fresh air.
- \* Quickly make sure the exhaust pipe is not blocked.

#### Make yourself visible to rescuers:

- \* Turn on your dome light at night when running the engine.
- \* Tie a colored cloth (preferably red) to your antenna or door.
- \* Raise the hood to indicate trouble after the snow stops falling.

Exercise from time to time by vigorously moving arms, legs, fingers, and toes to keep blood circulating and to keep warm.

January 31, 2002

A major ice storm strikes northern Indiana, snapping trees and power lines. Ice accumulations of one and a half inches occurred and over 250,000 homes were without power during the storm.

#### Outside

#### Find shelter:

- \* Try to stay dry.
- \* Cover all exposed parts of the body.

#### If no shelter:

- \* Prepare a lean-to, wind-break, or snow cave for protection from the wind.
- \* Build a fire for heat and to attract attention.
- \* Place rocks around the fire to absorb and reflect heat.

October 19, 1989

An extremely unusual early season snowstorm dropped 8 to 11 inches of snow on northern and central Indiana.



# Winter Weather Preparedness 101 For Schools...continued

#### School Bus Driver Actions

- \* For heavy snow or blowing and drifting snow: Be familiar with alternate routes, stay up to date on the latest forecast, and maintain communication with school officials.
- \* For ice storms: Remain alert for downed trees, utility lines, and other road hazards. Be familiar with alternate routes. Stay up to date on the forecast and maintain communication with school officials.
- \* Extreme cold: Learn to recognize and treat symptoms of hypothermia and frostbite.

#### Safety Instruction

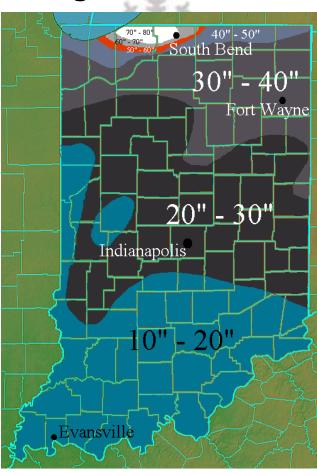
- \* Educate school staff and students: Conduct drills and hold safety programs annually.
- \* Participate in Winter Weather Awareness Week campaigns.
- \* Contact your local Emergency Manager or National Weather Service Office for a speaker to discuss winter weather safety.

#### **NOAA** Weather Radio

Keep ahead of the storm by listening to NOAA Weather Radio for the latest winter storm watches, warnings, and advisories. In addition to routine broadcasts, the Specific Area Message Encoding (SAME) feature of NOAA Weather Radio activates the Emergency Alert System (EAS). EAS is used to provide notification of emergencies to the public. Blizzard warnings will always be distributed through the EAS, while other winter storm warnings may be if deemed life threatening or particularly urgent.



# **Average Seasonal Snowfall**

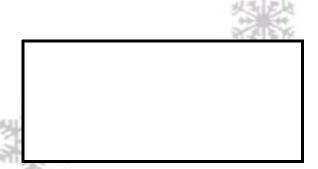


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#### **National Weather Service**

6900 West Hanna Avenue Indianapolis, IN 46241 317-856-0360

Winter Weather Awareness Week Material OPEN IMMEDIATELY!



# **Internet Sites**

National Oceanic and Atmospheric Administration (NOAA)

http://www.noaa.gov



National Weather Service http://www.nws.noaa.gov

National Weather Service Indianapolis http://www.crh.noaa.gov/ind

National Weather Service Northern Indiana http://www.crh.noaa.gov/iwx

NWS Office of Meteorology Winter Weather Page http://www.nws.noaa.gov/om/winter Federal Emergency Management Agency http://www.fema.gov/fima





American Red Cross http://www.redcross.org/services/disaster/keepsafe

> NOAA Weather Radio http://www.nws.noaa.gov/nwr

Climate Prediction Center http://www.cpc.noaa.gov

Indiana State Emergency Management Agency http://www.in.gov/sema